

DECLARATION FOR PATENT APPLICATION

As a below named inventors, we hereby declare that:

Our residences, post office addresses and citizenships are as stated below next to our names.

We believe we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled

USE OF NUCLEIC ACIDS CONTAINING UNMETHYLATED CPG  
DINUCLEOTIDE AS AN ADJUVANT

the specification of which was filed on June 3, 1999, as United States Application No.09/325,193.

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

We hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or section 365(a) of any PCT International application designating at least one country other than the United States listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign PCT International Application(s) and any priority claims under 35 U.S.C. §§119 and 365(a), (b):

| (Number) | (Country-if PCT, so indicate) | (DD/MM/YY Filed) | Priority Claimed |     |
|----------|-------------------------------|------------------|------------------|-----|
|          |                               |                  | [ ]              | [ ] |
|          |                               |                  | YES              | NO  |
| (Number) | (Country)                     | (DD/MM/YY Filed) | [ ]              | [ ] |
|          |                               |                  | YES              | NO  |
| (Number) | (Country)                     | (DD/MM/YY Filed) | [ ]              | [ ] |
|          |                               |                  | YES              | NO  |

We hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

|                      |                |
|----------------------|----------------|
| <u>60/040,375</u>    | <u>3/10/97</u> |
| (Application Number) | (filing date)  |
| (Application Number) | (filing date)  |

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s), or §365(c) of any PCT International application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

|                   |               |                                       |
|-------------------|---------------|---------------------------------------|
| (Application No.) | (filing date) | (status-patented, pending, abandoned) |
| (Application No.) | (filing date) | (status-patented, pending, abandoned) |

PCT International Applications designating the United States:

| <u>PCT/US98/04703 09/154,614</u> | <u>03/10/98</u>   | <u>Pending</u>                      |
|----------------------------------|-------------------|-------------------------------------|
| (PCT Appl. No.) (U.S. Ser. No.)  | (PCT filing date) | (status-patented,pending,abandoned) |

We hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

|                      |        |                        |        |                           |          |
|----------------------|--------|------------------------|--------|---------------------------|----------|
| David Wolf           | 17,528 | Peter C. Lando         | 34,654 | Michael G. Verga          | 39,410   |
| George L. Greenfield | 17,756 | Gary S. Engelson       | 35,128 | Robert E. Rigby, Jr.      | 36,904   |
| Stanley Sacks        | 19,900 | Peter J. Gordon        | 35,164 | Robert A. Skrivaneck, Jr. | 41,316   |
| Edward F. Perlman    | 28,105 | Randy J. Pritzker      | 35,986 | Robert M. Abrahamsen      | 40,886   |
| Lawrence M. Green    | 29,384 | Richard F. Giunta      | 36,149 | Lesley A. Hamlin          | 41,054   |
| Steven J. Henry      | 27,900 | Douglas R. Wolf        | 36,971 | Mike W. Crosby            | 40,970   |
| Therese A. Hendricks | 30,389 | Elizabeth R. Plumer    | 36,637 | Ivan D. Zitkovsky         | 37,482   |
| Edward R. Gates      | 31,616 | Timothy J. Oyer        | 36,628 | Michele J. Young          | 43,299   |
| William R. McClellan | 29,409 | John N. Anastasi       | 37,765 | Edward J. Russavage       | 43,069   |
| Ronald J. Kransdorf  | 20,004 | Helen C. Lockhart      | 39,248 | Alan B. Sherr             | 42,147   |
| M. Lawrence Oliverio | 30,915 | James M. Hanifin, Jr.  | 39,213 | John C. Gorecki           | 38,471   |
| Charles E. Pfund     | 17,030 | Christopher S. Schultz | 37,929 | William G. Gosz           | 27,787   |
| Jason M. Honeyman    | 31,624 | Paul D. Sorkin         | 39,039 | Thomas P. Grodt           | 41,045   |
| James H. Morris      | 34,681 | John R. Van Amsterdam  | 40,212 | Neil P. Ferraro           | 39,188   |
|                      |        | Matthew B. Lowrie      | 38,228 | Julie A. Beberman         | 40,906   |
|                      |        |                        |        | Alan W. Steele            | P-45,120 |
|                      |        |                        |        | Lisa Windsor              | 44,405   |

Address all telephone calls to Helen C. Lockhart at telephone no. (617) 720-3500. Address all correspondence to

Helen C. Lockhart  
c/o Wolf, Greenfield & Sacks, P.C.,  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, MA 02210-2211

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

*Heather L. Davis*

*8/6/99*

Inventor's signature

Date

Full name first inventor

Heather L. Davis

Residence

1053 Carling Ave.

Ottawa, Ontario K1Y 4E9 CANADA

Post Office Address:

Same as above

Citizenship:

CANADA

Inventor's signature

Date

Full name second inventor

Joachim Schorr

Residence:

Rubensweg 15, 40724 Hilden, Germany

Post Office Address:

Same as above

Citizenship:

GERMANY

Inventor's signature

Date

Full name third inventor

Arthur M. Krieg

Residence:

890 Park Place, Iowa City, IA 52246

Post Office Address:

Same as above

Citizenship:

USA

1003900-121800

## ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned, Heather L. Davis, hereby

Sell, assign and transfer to the Loeb Health Research Institute at the Ottawa Hospital, a corporation of Canada having a place of business at 725 Parkdale Avenue, Ottawa, Ontario, Canada K1Y 4E9, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on June 3, 1999, assigned serial no. 09/325,193 and entitled **USE OF NUCLEIC ACIDS CONTAINING UNMETHYLATED CPG DINUCLEOTIDE AS AN ADJUVANT**, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said Assignee may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to me relating to said inventions and the history thereof, and generally by doing everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee.

Covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

8/6 1999  
Date

Heather L. Davis  
Heather L. Davis

STATE OF Massachusetts :  
COUNTY OF Suffolk :

Subscribed and sworn to before me this 6<sup>th</sup> day of August 1999.

SEAL

Marianne Flynn  
Notary Public

My Commission Expires \_\_\_\_\_

MARIANNE FLYNN  
NOTARY PUBLIC  
My Commission Expires April 16, 2004

10023903-12401  
T0822T-60662001

## ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned, Joachim Schorr, hereby

Sell, assign and transfer to the CpG ImmunoPharmaceuticals GmbH, a German corporation having a place of business at Max-Volmer-Strasse 4, D-40724 Hilden, Germany, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on June 3, 1999, assigned serial no. 09/325,193 and entitled **USE OF NUCLEIC ACIDS CONTAINING UNMETHYLATED CPG DINUCLEOTIDE AS AN ADJUVANT**, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said Assignee may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to me relating to said inventions and the history thereof, and generally by doing everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee.

Covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

6/8/99  
Date

JS  
Joachim Schorr

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| <p><u>August 6, 1999</u><br/>Date</p> | <p><u>[Signature]</u><br/>Witness</p> |
|---------------------------------------|---------------------------------------|

10023909 . 121801  
FOBT21 606E2001

## ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned, Arthur M. Krieg, hereby

Sell, assign and transfer to the University of Iowa Research Foundation, a corporation of Iowa having a place of business at 214 Technology Innovation Center, Oakdale Research Campus, Iowa City, Iowa, 52242, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed on June 3, 1999, assigned serial no. 09/325,193 and entitled **USE OF NUCLEIC ACIDS CONTAINING UNMETHYLATED CPG DINUCLEOTIDE AS AN ADJUVANT**, and in and to said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agree that said Assignee may apply for and receive Letters Patent for said inventions in its own name; and when requested, without charge to but at the expense of said Assignee, agree to carry out in good faith the intent and purpose of this assignment by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to me relating to said inventions and the history thereof, and generally by doing everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee.

Hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee.

Covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me, and that full right to convey the same as herein expressed is possessed by me.

8/6/99  
Date

Attlm/K  
Arthur M. Krieg

STATE OF Massachusetts :  
COUNTY OF Suffolk :

Subscribed and sworn to before me this 6th day of August 1999.

SEAL

Marianne Flynn  
Notary Public

My Commission Expires \_\_\_\_\_

MARIANNE FLYNN  
NOTARY PUBLIC  
My Commission Expires April 16, 2004

FORGET "5066200"